

Montgomeryshire Moth Group

Photographing Moths

Digital cameras make photographing moths easier than ever before. So, whether you are taking photos for identification, inclusion on the Montgomeryshire Moth Group website, or just for your own album, the notes below may be of some assistance...

1) Before you start

- a) The moth specimen should already be in a container in a cool dark place e.g. the fridge.
- b) Never place the moth directly in the sun, as this will cause the moth to become active and distressed.
- c) Some moths just won't sit still for long and you may only have a few seconds to fire some shots off – so preparation is vital e.g. the camera settings, background and lighting should all be correct before positioning the moth.
- d) Ensure all windows are shut (losing specimens in this way is extremely galling!)
- e) And, once you've finished photographing, check that you have the images you wanted before releasing the moths into the shrubbery (where they will be safe from predation).

2) Backgrounds for photos

- a) Never use busy or brightly coloured backgrounds as this takes the eye away from the moth and produces a poor result.
- b) Any neutral or natural backgrounds are suitable for the moth to sit on e.g. leaves, wood, stone, photographer's card. You may want to show a species camouflage effect by placing them on a similar background colour, or you may prefer to show them in all their glory by using a contrasting background.
- c) If the background is movable e.g. a piece of card or slate, then its position can be adjusted (with the moth on it) in front of the camera prior to taking the photo.

3) Camera settings

- a) The camera would ideally be on a tripod or placed on a firm surface in front of the moth. You may find it easier to have the camera mounted on a table top tripod and then move the moth to the camera on a relatively mobile 'background' e.g. a piece of slate.
- b) The basic settings on digital cameras are the same. You will probably need to choose -
 - macro mode setting (to enable close-ups)
 - a picture resolution for as large a photo as possible (it can always be reduced in size on a PC afterwards).

Using the camera on auto may then produce a satisfactory result.

- c) Other optional considerations (particularly applicable when the camera is stable/tripod mounted) -
 - Manually adjust the white balance
 - Use spot metering for the light balance
 - Use manual focus and focus bracketing (this takes a number of pictures each at a slightly different focus setting, enabling you to choose the best focused picture when uploaded to the PC).



332a Firethorn Leaf Miner ~ *Phyllonorycter leucographella*

Photo by MDH using Canon Powershot S2 IS (5 mpx) with Raynox microscopic lens (model M250). Shutter Speed 1/2 sec. Aperture F/8. Manual focus, spot metered. Lit by deflected light from 100w spotlight bulb.

4) Lighting

This is probably the hardest thing to get right. Beware of too much light (over exposure), too little light (under exposure) and direct light (glare bounces back off the moth scales making them look shiny). Experimentation is recommended so that you get something you are comfortable with and which can be replicated. We use different light methods – PRW uses flash, MDH prefers no flash and uses artificial light (e.g. a light bulb or two).

Some basic guidance is-

- a) Avoid direct light – it is much better to reflect the light source onto the moth (e.g. using white card) rather than shining it directly at the moth.
- b) Similarly, using flash photography on moths can cause problems with 'bounce back' reflection off the scales. This can greatly destroy the colour and pattern of the moths. PRW has a 'Heath Robinson' but effective solution. He tapes a small piece of card onto the back of the flash that hangs down approximately 2cm over the front, so the flash is deflected to the sides rather than directly onto the moth. (Alternatively you could purchase a flash diffuser).

5) Best angle for sharp images

There are two main resting positions of moths that you should take into account for the best results-

- a) Tent-like moths (e.g. see web site species page 1128 *Ancylis myrtillana*).
 - i) Try to take the photo square-on to the wing, otherwise some of it will be out of focus.
 - ii) If possible, take the photo from the side that doesn't have the other wing folded over the top of the moth; this not only slightly obscures part of the photographed wing but could also be covering an important diagnostic feature.
- b) Flat moths (as in Carpet Moths) should be taken from directly above otherwise some of the image will be out of focus.

6) Scale and poorly marked specimens

To assist in identification-

- a) Include a reference for scale where species of similar appearance but differing size can cause confusion e.g. place a penny coin, a centimetre grid piece of paper, or a ruler at the bottom of the photo.
- b) On smaller micro moths, if possible please give an indication of the length of the moth (tip of head to tip of forewing in mm).
- c) On caterpillars please try to take a shot from above and another from the side, as diagnostic features on certain species often only show from one view. If possible, straighten the subject out a little to help with identification. (NB. Photos taken of larvae in early instars (moulting) don't always resemble the fully-grown larva, so identification can be difficult).

7) Submitting photos for the Montgomeryshire Moth Group Web site

- a) We welcome all photos of moths (any life stages) taken within the county for use on the web site. If you are sending photos to us please ensure that you personally took the picture and/or own the copyright.
- b) If the picture is for identification only and not inclusion on the web site then please make that clear!
- c) If sending several photos at once, avoid emails larger than 6mb as these are rejected by the server. In this case photos can be sent on CD.
- d) We don't mind which picture file format is used, or the size of the photo as we will adjust the dimensions to fit the web site regardless.

Dec 2010.